U.S. Serial No.: 10/708,919 Filed: March 31, 2004

Examiner: David C. Comstock

Atty. Docket No.: 101896-241 (DEP-5293)

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A spinal fixation system, comprising:

a first elongate member having a female connector with opposed arms and a second elongate member having a male connector adapted to mate to the female connector, the first and second elongate members coupled to one another such that the first and second elongate members are angularly adjustable relative to one another;

a mating element adapted to extend through the male and female connectors;

a fastening element adapted to mate to the male connector to cause the male connector to <u>clamp and</u> engage the mating element and lock the elongate members in a fixed position relative to one another; and

a spinal anchor implantable in bone and configured to mate to at least one of the first and second elongate members;

wherein at least one of the first and second elongate members is a biocompatible, implantable spinal fixation rod.

- 2. (Previously Presented) The spinal fixation system of claim 1, wherein angular adjustment of each elongate member is limited to a single plane.
- 3-6. (Canceled).
- 7. (Previously Presented) The spinal fixation system of claim 1, wherein the first and second elongate members each comprise a biocompatible, implantable spinal fixation rod.
- 8. (Previously Presented) The spinal fixation system of claim 1, wherein the first elongate member is a spinal fixation plate and the second elongate member is a biocompatible, implantable spinal fixation rod.
- 9. (Previously Presented) The spinal fixation system of claim 1, wherein the first elongate member is a biocompatible, implantable spinal fixation rod and second elongate member is a spinal fixation plate.

U.S. Serial No.: 10/708,919

Filed: March 31, 2004 Examiner: David C. Comstock

Atty. Docket No.: 101896-241 (DEP-5293)

10. (Previously Presented) The spinal fixation system of claim 1, wherein the first elongate member has a diameter that is different than a diameter of the second elongate member.

11-12. (Canceled).

13. (Previously Presented) The spinal fixation system of claim 1, wherein the opposed arms

define a recess therebetween for receiving the male connector.

14. (Previously Presented) The spinal fixation system of claim 1, further comprising a bore

extending through the opposed arms on the female connector and through the male connector, and the

mating element extending through the bore for mating the male and female connectors to one another.

15. (Previously Presented) The spinal fixation system of claim 14, wherein the mating element

comprises a cylindrical member, the cylindrical member being adapted to allow at least one of the

first and second elongate members to rotate thereabout.

16. (Previously Presented) The spinal fixation system of claim 15, wherein the cylindrical

member is fixedly coupled to a portion of the female connector, and the male connector is free to

rotate about the cylindrical member.

17. (Previously Presented) The spinal fixation system of claim 16, wherein the fastening element

is effective to engage the cylindrical member to prevent movement of the male connector relative to

the female connector.

18. (Currently Amended) The spinal fixation system of claim 17, wherein the fastening element

eomprises-includes a slot extending through the male connector such that the male connector is in the

form of a clamp, and wherein the fastening element is adapted to engage the male connector to clamp

the cylindrical member within the bore.

19. (Previously Presented) The spinal fixation system of claim 18, wherein the fastening element

comprises a threaded member.

4

U.S. Serial No.: 10/708,919 Filed: March 31, 2004

Examiner: David C. Comstock Atty. Docket No.: 101896-241 (DEP-5293)

20. (Previously Presented) The spinal fixation system of claim 1, wherein the female connector and male connector of the first and second elongate members rotate about a central axis extending substantially perpendicular to an axis of each first and second elongate members.

21-41. (Canceled).

42. (Currently Amended) A spinal fixation system, comprising:

first and second elongate members, each having a connecting feature formed on a terminal end thereof, the connecting features being coupled to one another such that the first and second elongate members are angularly adjustable relative to one another along a plane;

a mating element adapted to extend through the first and second elongate members;

a fastening element adapted to extend into at least one of the connecting features along an axis that is substantially parallel to the plane to cause at least one of the connecting features to <u>clamp and</u> engage with the mating element to lock the first and second elongate members in a fixed position relative to one another; and

a spinal anchor implantable in bone and configured to mate to at least one of the first and second elongate members;

wherein at least one of the first and second elongate members is a biocompatible, implantable spinal fixation rod.

43. (Currently Amended) A spinal fixation system, comprising:

first and second elongate members coupled to one another such that the first and second elongate members are angularly adjustable relative to one another, the angular adjustability of each elongate member being limited to a single plane;

a mating element adapted to extend through the first and second elongate members;

a fastening element adapted to cause at least one of the first and second elongate members to <u>clamp and</u> engage the mating element to lock the elongate members in a fixed position relative to one another, the fastening element extending along an axis that is substantially parallel to the single plane of angular adjustability of each elongate member; and

a spinal anchor implantable in bone and configured to mate to at least one of the first and second elongate members;

U.S. Serial No.: 10/708,919

Filed: March 31, 2004

Examiner: David C. Comstock Atty. Docket No.: 101896-241 (DEP-5293)

wherein at least one of the first and second elongate members is a biocompatible, implantable

spinal fixation rod.

44-45. (Canceled).

46. (Previously Presented) A spinal fixation system, comprising:

a first elongate element having a clamping mechanism formed on a terminal end thereof;

a second elongate element having a terminal end adapted to be received by the clamping

mechanism on the first elongate element;

a fastening element adapted to engage and close the clamping mechanism such that the

second elongate member can be maintained in a fixed position relative to the first elongate member;

and

a spinal anchor implantable in bone and configured to mate to at least one of the first and

second elongate members;

wherein at least one of the first and second elongate members is a biocompatible, implantable

spinal fixation rod.

47. (Previously Presented) The spinal fixation system of claim 46, wherein the first elongate

element has a diameter different from a diameter of the second elongate element.

48. (Previously Presented) The spinal fixation system of claim 46, wherein the first elongate

element has a diameter that is the same as a diameter of the second elongate element.

49. (Previously Presented) The spinal fixation system of claim 46, wherein the terminal end of the

second elongate element is positioned at an angle relative to a longitudinal axis of the second elongate

element.

50. (Previously Presented) The spinal fixation system of claim 49, wherein the angle is about 90°.

51-59. (Canceled).

6